communication is a valuable tool in bringing people together to share not only information, but goods and services as well.

Cultural Diffusion

Our solid American citizen awakens in a bed built on a pattern which originated in the Near East, but which was modified in Northern Europe before it was transmitted to America. He throws back covers made from cotton first grown in India, or linen first made in the Near East, or silk, the use of which was discovered in China. All of these materials have been spun or woven by processes invented in the Near East. He slips into moccasins invented by the Indians of the eastern United States, and goes to the bathroom, whose fixtures are a mixture of European and American inventions, both of recent date. He takes off his pajamas, a garment invented in India, and washes with soap invented by the ancient Gauls. He then shaves, a custom which seems to have been developed in ancient Egypt.

Returning to the bedroom, he removes his clothes from a chair of Southern European type, and proceeds to dress. He puts on clothes whose form originally developed from the skin clothing of the nomads of the Asiatic steppes, puts on shoes made from skins tanned by a process invented in ancient Egypt, and cut to a pattern developed in ancient Greece, and ties around his neck a bright-colored cloth which is a survival of the shoulder shawls worn by 17th-century Croats of Southern Europe. Before going out to breakfast he glances through the window, made of glass invented in Egypt, and if it is raining, puts on overshoes made of rubber first used by Central American Indians, and takes an umbrella invented in Southeast Asia. Upon his head he puts a hat made of felt, a material first used on the Asiatic steppes.

On his way to breakfast he buys a newspaper, and pays for it with coins of ancient Lydian invention. At the restaurant a new series of borrowed things face him. His plate is made of a form of pottery invented in China. His knife is of steel, an alloy first used in southern India, his fork is a medieval Italian invention, and his spoon comes from a Roman original. He begins breakfast with an orange from the eastern Mediterranean, a cantaloupe from Persia, or perhaps a piece of African watermelon. With this he has coffee, an African plant. After his fruit and first coffee he goes on to waffles, cakes made by a Scandinavian technique from wheat first raised in the Near East. As a side dish he may have eggs, first eaten in Eastern Asia, or then strips of the flesh of an animal first tamed in Eastern Asia which has been salted and smoked by a process developed in Northern Europe.

When our friend has finished eating, he settles back to smoke, an American Indian habit, consuming a plant first developed in Brazil, in either a pipe developed by the Indians of Virginia, or a cigarette, derived from Mexico. If he is hardy enough, he might even smoke a cigar, brought to us from the Antilles by way of Spain. While smoking, he reads the news of the day, imprinted in characters invented in Germany. As he absorbs the information in the newspapers of the problems that exist in other countries he will, if he is a good conservative citizen, thank a Hebrew deity in an Indo-European language that he is 100 percent American.

This article by Ralph Linton clearly shows the origins of certain objects and activities with which Americans are familiar. He shows the origins to be outside of America. When cultural traits or cultural patterns are spread from one group of people to another and from one culture to another, this action is called cultural diffusion.

Most of the cultural background and heritage of America was brought here from England, Spain, and other European countries. Some items of America's culture, such as the potato, maize, types of cooking and methods of warfare were contributed by Native Ameri-
cans. African traditions have influenced music and religion, and more recently, immigrants from Asia and Latin America have added new aspects to the mix of American culture.

England and France diffused much of their culture from Italy. Italy, in turn, borrowed from the Greeks. It was once believed that Greece created its own culture. However, we now know that the Greeks borrowed much from Crete, and that Crete borrowed from Egypt. Egypt exchanged cultural traits with the cultures of the Tigris-Euphrates Valley. The Tigris-Euphrates cultures exchanged traits with the Indus River civilizations. India, in turn, had interchanges with China. As you can see, there has been a vast amount of borrowing by one people from another.

If a new cultural pattern or object appeals to a groups of people because it is useful and meets the needs of the group, cultural diffusion takes place. The new pattern or object is made part of the group’s culture in a way that best serves the group.

Diffusion is not automatic when two groups come together. It is selective. If a particular trait fits in easily with a culture, it is quickly diffused. If it can be used or is needed, it will be adapted or changed slightly to fit the needs of a society. The Russians borrowed the Greek religion, but made it fit the existing culture of Russia.

“I approach my older brother with respect, my father and mother with veneration (honor), my grandfather with awe (fear).”—an old Chinese saying—expresses how the Chinese placed great importance on the past. They borrowed little from the outside, and what they did borrow, they made Chinese. Custom and tradition ruled in China. Cultural diffusion was resisted. Few new ideas entered. The Chinese civilization fell behind and began to crumble under the force of 20th century progress.

It is important to note that societies and nations borrow from each other to better themselves. There is no single culture that has developed without diffusion. We will note many examples of cultural diffusion in our study of the world.
China’s Contributions to World Civilization: Achievements in Science and Technology

China has contributed a great deal to the world in both science and art. A British scientist has written that China’s technological discoveries and inventions were “far in advance of contemporary Europe, especially up to the 15th century.”

Paper

According to tradition, paper was first made by Cai Lun, a Chinese government inspector, and presented to the Emperor He Di in 105 A.D. Tree bark, pieces of hemp, linen rags, and fish nets were boiled and then pounded into a loose pulp. After water and plant gums were added, the solution was strained through a fine screen on which the pulp dried to become sheets of paper. The sheets were then dried on a heated wall. Papermaking flourished in China during the Tang and Song dynasties. A great variety of paper for different purposes was made.

Although Cai Lun is usually credited as the first papermaker, recent excavations have discovered even earlier examples of paper. The earliest dates back to the period 140–87 B.C.

At the beginning of the 3rd century, Chinese paper was introduced to Korea and Vietnam and from Korea to Japan. By the end of the 7th century the technique of papermaking reached the region that now includes India, Nepal, Pakistan, and Bangladesh. In the
12th century, Spain learned papermaking from the Arabs, and in 1150, Europe’s first paper mill was built in Spain. From Spain the technique spread to France, Italy, and other European countries. In 1575, papermaking reached Mexico, the first place in the Americas.

**Printing and Paper Money**

Before the invention of printing, books and documents were handwritten. The technique of printing with carved wood blocks appeared about the 7th century, early in the Tang Dynasty. This technique was used for copying manuscripts and illustrations. Block printing reached its golden age during the Song Dynasty when the imperial government encouraged the publication of large numbers of books.

Movable type was invented between the years 1041 and 1048. The method was based on the same principles of typesetting used today. Movable metal type printing began in China in the 13th century. Printing techniques invented in China spread to Japan and Korea and later westward to Persia. Their influence was felt in Egypt and Europe.

The first paper money used in the world was printed in China early in the 11th century. The plates used to print the money were made of copper. They were engraved with intricate designs to discourage counterfeiting.

**Gunpowder**

The discovery of gunpowder in China resulted from experiments to produce longevity (long life) pills. As early as the period of the Warring States (475–221 B.C.), alchemists were brought to the imperial court to prepare drugs that would ensure immortality. The experiments did not produce the desired results, but many important discoveries were made.

During the 8th century, alchemists discovered that combining sulphur, saltpeter, and charcoal produced an explosive mixture. This was gunpowder, or huoyao (fire medicine) as the Chinese still call it, because its three ingredients were used separately as medicines.

**Firearms**

It is not known exactly when gunpowder began to be used for military purposes. Some historians believe this dates back to the late Tang Dynasty. A military encyclopedia written sometime between 1010 and 1063 described in detail the making and use of gunpowder. In the year 1000, rockets and fireballs were used. Arrows bearing gunpowder near the tip were also in use at that time. True rockets were used in battle for the first time by Kublai Khan, the first emperor of the Yuan Dynasty, in military expeditions against Japan in 1274 and 1281. The first gun to discharge arrows fired by gunpowder also appeared during the Yuan Dynasty. In 1332, the world’s first bronze cannon was made. Powder-propelled firecrackers were invented between 1127 and 1194 during the Song Dynasty and led to festival fireworks.

The use of gunpowder and firearms spread to Europe along the trade routes and the westward march of the Mongol armies, arriving in Europe in the 15th century.

**The Compass**

Lodestone, which has magnetic north-south pointing properties, is believed to have been used for direction-finding in the 3rd century B.C. or even earlier. The earliest written
A copy of the world’s first compass.

reference comes from the 3rd century B.C.: “When the people of the State of Zheng go out in search of jade, they carry a south-pointer with them so as not to lose their way in the mountains.” The world’s first compass, the “south-governor” was made in China during the Qin (Ch’in) Dynasty. A piece of lodestone carved in the shape of a ladle was balanced on a round bronze plate. This was set within a square plate and engraved with directional points. When the ladle was spun, it always came to rest with its handle pointing to the south. During the 11th century, advances in technology led to the use of magnetic iron needles and the creation of very sensitive instruments.

The invention of the compass had an enormous impact on navigation. Sailors established ocean routes, which they called “needle routes.” By the 13th century, China was trading with many countries in Asia and Africa.

Silk

The raising of silkworms and the production of silk is one of China’s great contributions to the world. Silk comes from the cocoons that silkworms spin around their bodies after they have eaten the leaves of the mulberry tree. By means of a very difficult process, the tiny threads are removed from the cocoons and spun into silk thread. The thread is then woven into silk cloth.

Silk was woven in China more than 4,000 years ago. We have evidence for this from excavations made by archaeologists in recent years. Silk was highly valued and it was often placed in people’s tombs after they died. Some of these ancient silks are being discovered now. In many places, farmers had to pay taxes in the form of silk.

For many centuries silk was the chief item in China’s foreign trade. Beginning in the 1st century B.C., silk was carried over the Old Silk Road, which started in Xi’an in Central
Weaving brocade: Of the many varieties of silk fabrics, brocade woven in raised patterns with gold and silver thread was considered the most beautiful. The invention of the double drawloom seen in this picture made it possible to weave brocade with the most elaborate patterns.

There was a great demand for Chinese silk in the Roman Empire. So much silk was exported from China to the West that it contributed to a harmful drain of gold and silver from Rome. The route by which the silk was transported is known as the Old Silk Road. This was the same route taken centuries later by Italian merchants. Marco Polo and his father and uncle traveled to China over this road.
Africans also differ from each other culturally. There are differences in language, religion, customs, ways of earning a living, house types, dress, methods of farming, and others. There are also many other peoples who have made Africa their home.

Europeans


Arabs

Hundreds of years ago people from Arabia settled along the coast of East Africa. In recent years many Arabs from Syria and Lebanon settled in West Africa. It is estimated that there are about 1 million Arabs in Africa south of the Sahara.

Asians

Hundreds of thousands of Indians and Pakistanis live in the cities of southern and eastern Africa. They are shopkeepers, traders, and factory workers. Most have kept to their own customs and refused to become citizens of the new African nations in which they live. For this reason the African governments have put pressure on them to give up their foreign citizenship or leave the country. Many have chosen to leave.

Languages

There are many languages spoken in Africa. It is estimated that there are about 800 languages. The actual number may be even greater. These languages can be divided into four major language groups.

Niger-Congo Family

The largest of the language groups and the one that covers the largest geographic area is the Niger-Congo family. This group is divided into seven subfamilies. One of these subfamilies is the well known Bantu. Bantu languages cover most of Central and South Africa. These languages are closely related to one another.

Sudanic Family

The languages spoken in the western Sudan and the area of the middle Niger River belong to the Sudanic family.

Afro-Asian Group

The Afro-Asian group includes ancient Egyptian, Cushitic, and the languages spoken in Somalia and around Lake Chad. The most important language in this group is Hausa.

Click Languages

The Click languages are spoken by the Hottentots and Bushmen.

With so many different languages, it is difficult for Africans to communicate with each other. In Nigeria there are 250 languages. An African leaving his own village may not be able to speak to people living in the next village. Therefore, European languages are used by many Africans to communicate with each other. The two most important European languages that have become the official languages of many countries are English and French. Two African languages are used in the same way. Swahili (a mixture of Arabic and Bantu) is spoken by several million people living in East Africa. Hausa is spoken in northern Nigeria and in other parts of West Africa.

African Families

There is an African proverb that says, “A man or woman without kin is as good as dead.” This indicates how important the family is to an African. Family life is important in all societies. The family satisfies the most basic human needs—the need for companionship, for
food, for reproduction, and for teaching and training the young. But Africans are far more closely tied to their families than are Americans or people in Western countries. In a number of ways African family life is different from that of American families.

Marriage and the Family

In America when a young couple marries, they move into a home of their own. In Africa the wife goes to live with her husband’s family. In our country young people choose the husband or wife whom they wish to marry. In Africa the marriage is usually arranged by the parents. This means that the parents may actually pick the mate for their son or daughter to marry. More often, however, a young man meets a girl whom he likes. He then reports this fact to his father and must get his approval. His father and several other members of the family then arrange to visit the girl’s parents to get their approval and to discuss the marriage. Part of the discussion involves the payment of what is known as “bride price” or “bridewealth.” The young man has to make some kind of payment to the girl’s father before he is allowed to marry her. This payment is usually in the form of cattle or sheep or another type of currency. This does not mean that the man is buying his wife. The bride price is a symbol that the union of the two people is legitimate. It is also a form of compensation for the father of the bride who is not only losing a daughter but a worker as well.

An African man may have several wives at the same time providing he is able to support them. This is known as polygyny. Although polygyny is found throughout Africa, it has been estimated that not more than 10 percent of African men have more than one wife. There are several reasons for polygyny. By having more than one wife a man can be certain of having many children. In this way his name and spirit, as well as that of the whole family, will live on. Also the more wives a man has, the more workers he will have to help him in the fields. While jealousy often does exist, in most cases the co-wives learn to get along and to work together quite well. The children of several wives live together as sisters and brothers. Children can depend on another “mother” if their own is busy.

The Extended Family

Most African families are known as extended families. An extended family consists of several generations living together in the same household or group of houses. This includes the oldest male, his wives, their unmarried daughters, the married sons, and their wives and children.

The extended family provides for the social security of its members. There is no need for old age homes or orphanages in Africa because the family takes care of its orphans, widows, and old people. In many cases when a man dies his widow marries her husband’s brother. Loneliness is not a problem in Africa. In case of illness the family can be relied on for support. When crops fail, what little there is will be shared. When money is needed to pay for a child’s education, relatives will often assist the parents. When relatives request help, it is considered an obligation to provide it. People do not undertake these duties out of the goodness of their hearts—they know that they will be able to demand help from the kin when they need it.
Gods and Spirits

Nearly all the African religions believe in a Supreme Being or God who created the earth and all humanity. God then withdrew and left the affairs of the world to humans. God is remote (far away) and not often prayed to. Only in case of major crises do people seek God’s help. This is usually when the entire tribe (not the individual) is threatened by drought, epidemic, or some other catastrophe.

Between God and people are the lesser gods and ancestor spirits. These gods are believed to live in rivers, caves, mountains, and trees. Africans do not worship rivers and mountains. They worship the spiritual forces that these things represent. These spirits are of great importance in daily life and are always close to people. Since Africans live close to nature, if the rains fail or the crops are flooded or eaten by pests, people may be threatened by starvation. Therefore, it is best to keep the gods on your side.

It is believed that the ancestral spirits watch over the fortunes of their descendants. These spirits can punish the living if they are forgotten and not honored. Therefore, on all important occasions—such as births, deaths, initiation ceremonies, weddings, planting, and harvesting—prayers and offerings are made to the departed ancestors. Even on lesser occasions, for example, the building of a new house or the judging of a person accused of wrongdoing, the spirits of the ancestors are appealed to for guidance and are offered beer or some other offering. In their prayers, Africans ask for health for themselves and their families, for the welfare of the tribe as a whole, and for the fertility of their fields. Africans do not worship their ancestors; they communicate with them. We have learned how important the family is to African people. This includes both the living and the dead members of the family. Therefore, Africans consider it only right to involve the spirits of the dead ancestors in the affairs of the living.

The Medicine Man

When misfortune strikes, Africans turn to a diviner, or medicine man, to discover the cause of the misfortune. The diviner is believed to have special powers that enable him to find out the cause as well as the cure for whatever has happened. The African may know the scientific cause for the calamity, for instance, that malaria is caused by a mosquito bite. When tragedy occurs, people usually ask the question “why me?” The diviner tries to find out why a certain misfortune has befallen a particular person or group. Often the reason is the anger of an ancestor whose spirit has been neglected and is therefore punishing the descendant. Through the use of many techniques, such as throwing animal bones or palm nuts on the ground to form certain patterns, the diviner tries to find out which spirit has been offended and what must be done to satisfy it. Sometimes an offering of beer to the ancestral spirit is enough. In most cases, however, it is necessary to sacrifice an animal. Sacrificing an animal, which is the symbol of life to one’s ancestors, is believed to be a means of communicating with them. Many Africans believe that in case of illness, medical treatment alone is not enough. This may cure the symptoms but not the basic cause of the disease. Thus, although Africans may go to a clinic for treatment, at the same time they will follow the ritual prescribed by the diviner. For this reason the diviner has great influence in most African tribes.
Magic

In many cases magic and religion go hand in hand, and sometimes it is not easy to separate the two. Magic may be used to protect the individual against illness or misfortune; to guarantee success in agriculture, hunting, and even love; and sometimes even to bring harm to another person. This last type of magic can bring severe punishment to the person who practices it. In general, the purpose of magic is to give people confidence in difficult situations. Many people carry a charm with them to protect them from danger.

While many aspects of African religions may seem strange to us, it must be remembered that our religious practices may very well seem strange to them. If we are able to understand why people believe and do certain things, these beliefs will make much more sense to us.

African Arts

African Art Was Unknown in the West

The great qualities of African art and music were not appreciated, recognized, or understood by people of the West until fairly recently. There are many reasons for this. African art and music were quite different from what Westerners were used to seeing and hearing. Our knowledge of African culture was very limited. Westerners did not realize that the art works were part of the religious and cultural life of the Africans. The music seemed to be without rhythm, and the sculpture seemed almost childish. These art objects did not fit into the ideas of what Westerners considered "art."

Only in the last 60 or 70 years have artists begun to recognize that the African forms and creations are related to their own experiences and efforts. Moreover, our knowledge of African art, sculpture, and music is still limited. We do not have many objects that date back to much earlier than the 19th century. Recently, discoveries have been made that give us information about earlier times. Although early artists used stone, bronze, and terracotta, the favorite material used was wood. Unfortunately, the moist climate and insects have destroyed all but the most recent wood carvings.

Early African Art—The Bushmen

The first artists were among the earliest inhabitants of Africa. Bushmen artists left a record of striking rock paintings and engravings in limestone. These paintings tell us much about the Bushmen's nomadic life, which was based on hunting and food gathering. The drawings of buffaloes, rhinos, and lions in reds, browns, and ochers, are realistic and life-like. This rock art was probably begun about 8,000 years ago.

Nok Culture

Some 2,500 years ago, where the Niger and Benue Rivers join in northern Nigeria, lived a highly skilled people. They made pottery, figurines, and life-sized heads from terracotta (baked clay). By means of trade, these art objects moved throughout West Africa. Archaeologists refer to the culture as the Nok culture because it was in the town of Nok in Nigeria in 1931 that some tin miners first found these terracotta pieces.
Ife Art

Not far from Nok is the holy city of Ife. A number of sculptured heads were found here. They date from the 13th century. The heads of Ife were made of bronze. The method used to make them was called the "lost wax" process. This was a difficult and complicated method that only highly skilled artists could use. This method is still used today.

The "lost wax" method consists of modeling the piece of wax, covering it with clay, then baking it. After the wax has melted and run out, being "lost" through holes at the bottom of the clay, the holes are then stopped up and liquid bronze poured in.

The faces of the pieces seem almost alive. The lines found on many of the faces are similar to marks still found on the people of Nigeria. These skin patterns are called scarifications. Such scars often showed the rank of the person and the tribe into which he or she was born.

Benin Art

The bronzes of the Benin also show the great skill of the West African. Their pieces are so beautifully made that art experts today often compare them to the finest works by Western artists. The Benin artists also made sculptures in ivory, a material reserved for the king. The ivory elephant tusks were carved and hollowed out to serve as cups for water, combs, serving spoons, and ceremonial knives, as well as for pendants and small statues or figurines.

Characteristics of African Sculpture

Wood sculpture is a favorite activity of many African tribes. There are different styles. Each group, tribe, or section has its own favorite form of expression. However, most African sculptures show certain common characteristics:

1. The sculptor tried to make the piece as beautiful as possible. This did not mean that the statue necessarily had to resemble the ancestor, god, or spirit. Naturalism that was too great was not considered proper.

2. Much of the sculpture is abstract. The sculpture simplified the most important features of the figure, and then exaggerated these features for emphasis.
   (a) The increase of population (fertility) was the most important concept of life. The symbols of fertility used by the sculptor were the male and female reproductive organs and the female breasts, and he often exaggerated them to show their importance.
   (b) Artists also showed the navel as large and sticking out, as a symbol of continuity of life.
   (c) The head was made oversize. It was carved with great care, as it was the seat of intellect and the origin of power.
   (d) Artists preferred to show still poses, instead of poses showing movement.
   (e) Artists also preferred front views of figures, rather than profiles and side views.

3. Few portraits were carved or painted because Africans felt it was undesirable and lacked humility to make things too realistic. Some figures, like the wood statues of the kings from Benin and Ife, were carved. They were usually idealized (godlike).

4. The different tribes also carved statues to be used as fetishes. A fetish is an object thought to have magical powers. It can be protective or threatening.
5. Figures of animals were also carved or cast in bronze to express certain admirable qualities. For instance, speed was often characterized by the antelope, and strength was symbolized by the crocodile. The lizard signified life, the tortoise old age, the snake swift movement or death. Birds were often thought of as intermediaries between the earth and heaven.

**Masks**

Tribal masks are probably the most familiar kind of African art. Their use goes back to the very early times. For example, some of the figures on the prehistoric rock paintings are wearing elaborate masks.

Masks were worn mainly in religious ceremonial dances related to the growing of crops, celebrations of births, deaths, and important tribal and secret society ceremonies. Masks were based on human or animal forms, or a mixture of both.

Many masks were thought to be sacred, and were kept locked up when not in use. Women were not permitted to wear them and, in many cases, not even to see them. Some masks were deliberately terrifying so as to frighten women away from secret ceremonies. Colors were often used as symbols. To some tribes black meant the earth, and stood for strength and vitality. White meant the supernatural.

**Types of Masks**

The basic type of tribal mask is the face mask. Often a stick was placed across the back of the mask and the man wearing the mask held it in place by holding onto the stick with his teeth. A costume of some sort was usually attached around the edge of the mask; few of the costumes remain today.

Some tribes used ivory to make miniature masks. Such masks were often given to young boys to show their future rank in the tribe or society. They were prized and worn by each boy under his clothing until he finally passed the initiation rituals. Then he proudly wore them on his belt or arm, where they could be seen.

Another type of mask is the helmet, which may partially or completely cover the head. Still another type of mask sits on the top of the head. When this type of mask is worn, the face is usually covered by a costume.

**African Art and the West**

At the beginning of the 20th century, African carvings appeared in Paris, France, and influenced the work of a number of European artists. Pablo Picasso, for example, began to experiment in what is now called his “African phase,” and produced *Woman in Yellow*, *Young Woman of Avignon*, and *Head*, to name just a few. Amedeo Modigliani carved *Head of a Woman* and painted many canvases that show that he was influenced by African art.

The artistic work of the people of Africa is now recognized as being the artistic equal of anything produced by any other civilization.

**Oral Literature**

Much of the history, the culture, the folklore, and the music of Africa has been passed along from generation to generation orally (by word of mouth). Certain members of each community would memorize the stories, legends, and family histories learned from their elders. They, in turn, would pass them on to the next generation.